

GREATER CHARLOTTE REGIONAL FREIGHT MOBILITY PLAN

**PLANES, TRAINS, & SEMIS: KEEPING A DYNAMIC
ECONOMY ON THE MOVE**

NOVEMBER 13, 2015

Plan Purpose

1. Understanding the Current Freight Climate

The efficient, reliable, and safe movement of goods and commodities in the Greater Charlotte region is required to sustain private sector commerce.

Manufacturing, logistics, distribution and agricultural sectors rely on freight transportation to connect their supply chains.

In order for existing businesses to grow and attract customers, the freight system must provide mobility to get goods to market.

2. Looking Toward the Future

The Greater Charlotte Region should look to position itself as an emerging trade hub in Southeast.

The region is rich in the attributes and characteristics to become a national and global trade hub.

The major west-east and south-north highway corridors, and first class access to the rail network with Charlotte as a hub.

The Charlotte-Douglas International Airport recently developed their multimodal strategic plan and should serve as a tool to inform the Freight Mobility Plan.

Understanding the Region's Freight Landscape

- Congestion is has a significant impact on commerce
- Multijurisdictional issues
- Sprawl/Land Use Management
- Making what we have work better
- Capitalize on port connections
- Enhancing modal connectivity
- Good planning leads to implementable projects
- Outreach to freight system users



Plan Partners

- Coordinating Committee
 - Responsible for overseeing the overall technical aspects of the Plan including content, layout, recommendations, and implementation.
 - Includes representatives from CCOG, MPO and RPO members, NCDOT, SCDOT, and FHWA

Plan Partners

- Steering Committee
 - Responsible for the policy level elements of the Plan, serving as advisors to the Coordinating Committee in addition to reviewing Plan recommendations and findings.
 - Includes MPO TCC members, representatives from counties, economic development community, modal representatives (air, rail, water), etc.

Plan Partners

- Freight Advisory Committee (FAC)
 - A FAC will be established by identifying members during the Plan development process.
 - It will be composed of members of the private sector including firms related to trucking, rail and aviation.
 - Members will assist in the implementation of the Plan on an on-going basis.



Stakeholder Engagement

- Three Rounds of Interviews/Surveys
 1. Industry surveys and interviews—Conditions and Performance
 2. Driver Interviews
 3. Industry surveys and interviews—Needs and priorities

Plan Development Process

Existing Conditions

Bottlenecks

Commodity Flows

O-D Analysis and Freight Corridors

Network Identification

Economic Impacts

Truck Parking

Land Use, Facility, Infrastructure & Regulatory Gaps

Existing Land Uses

Regional Freight Land Use Policies and Regulations

Truck Parking Capacity and Needs

Road/Rail Network Corridor Demand

Best Practices

Technology Trends

Safety and Security

Public Private Partnerships

Prioritizing Regional Needs

Bottlenecks & LOS

Pavement/Bridge Conditions

High Crash Location

Economic Opportunity

Rail/Truck Grade Crossings

Intermodal Connections

Performance Measures

Goals Addressed

Freight Impacted, Related or Focused

Quantifiable and Trackable



Greater Charlotte Regional Freight Mobility Plan

Stakeholder Engagement

Plan Outcomes

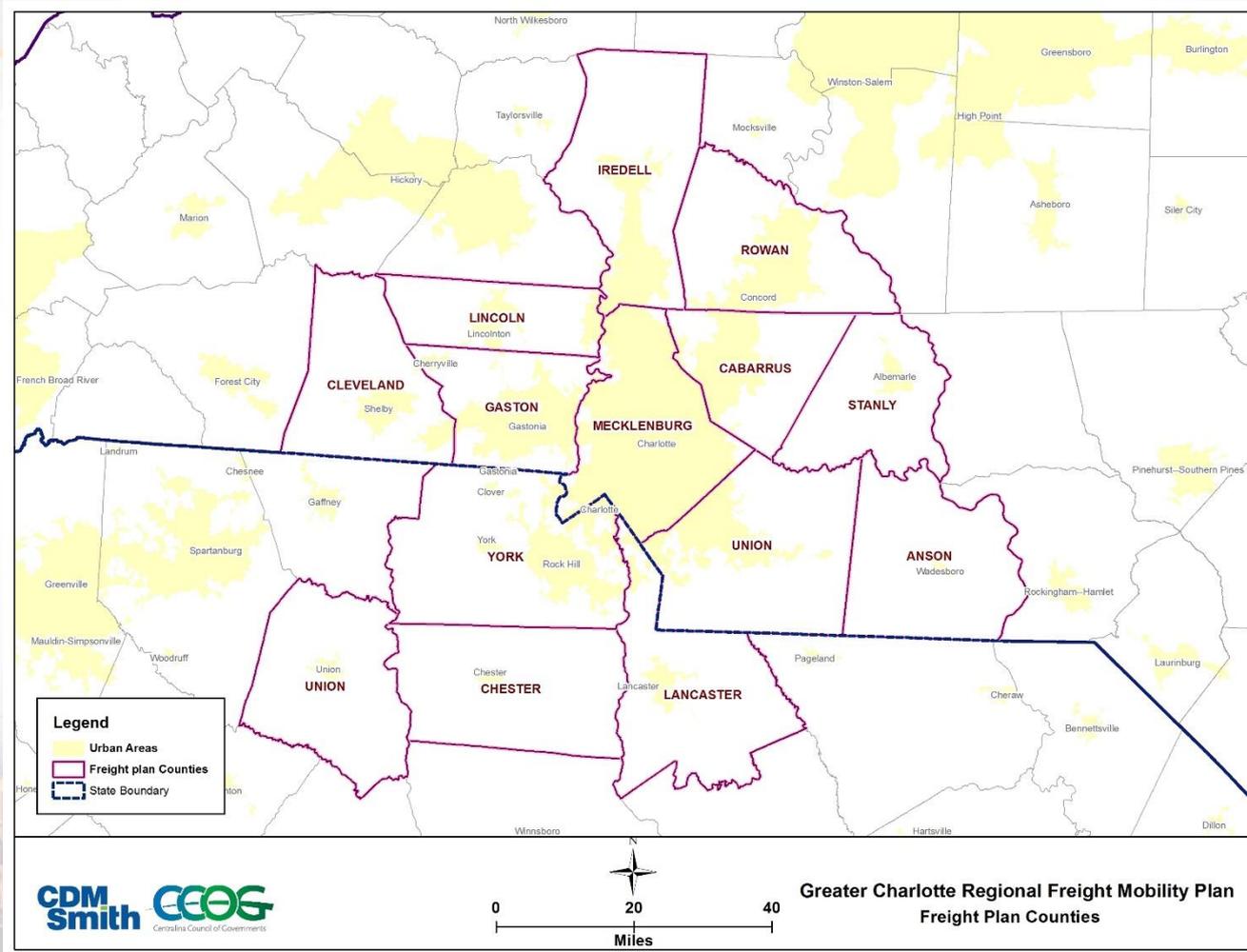
- Recommendations and guidance for actions, policies and investments
- Project prioritization processes for North Carolina's Strategic Transportation Investments law (STI)
- Identification of opportunities to capitalize on increased federal funding (MAP-21 and beyond)
- Freight transportation conditions, performance, needs and opportunities
- Freight logistical, infrastructure, land use and economic impacts

It is critical that the Charlotte region prioritize needs that provide the greatest impact to freight mobility to capitalize on opportunities.

Progress to Date

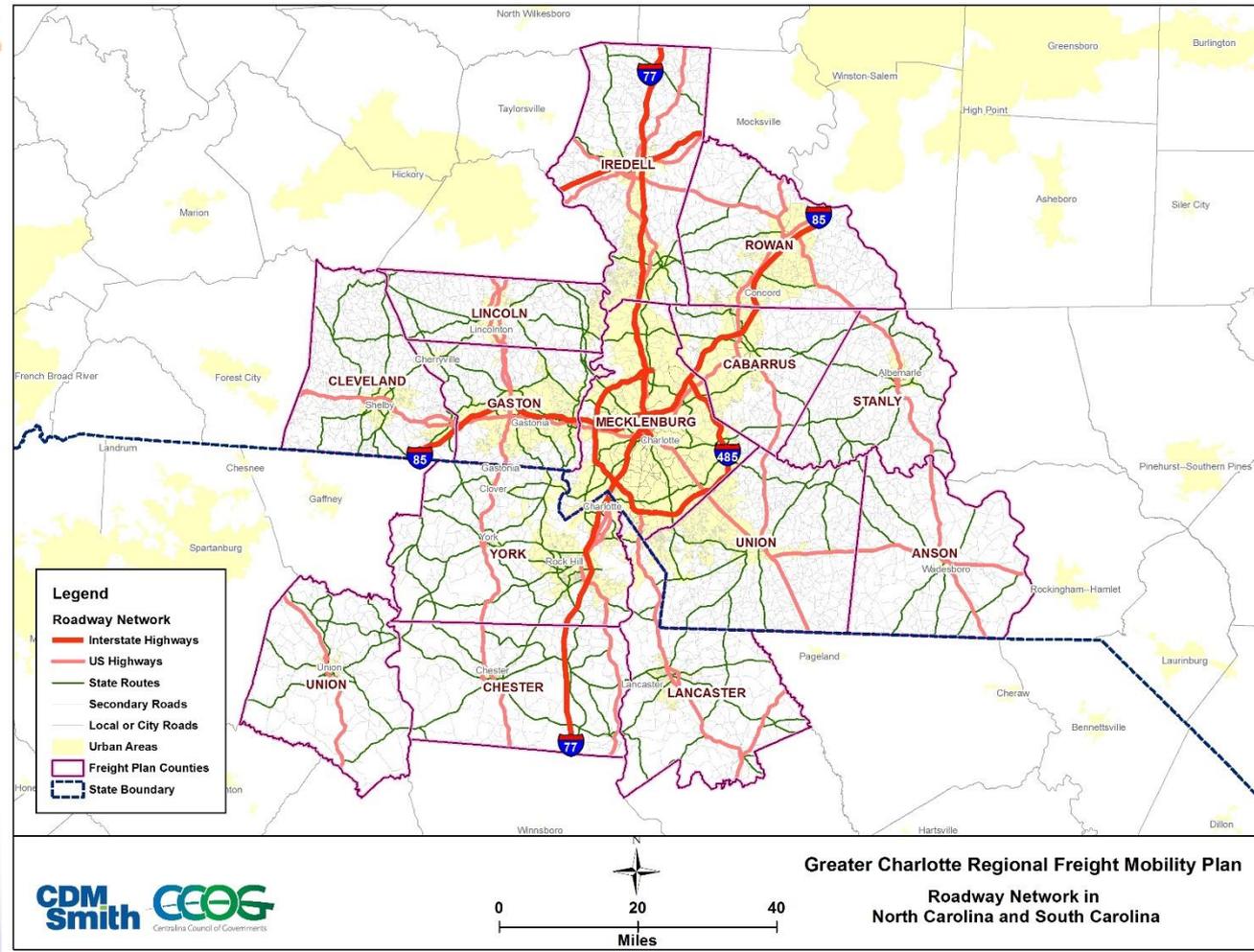
- Base data collection
- Freight network inventory
- Truck parking inventory and utilization
- Review of existing plans
- Mapping
- Update meetings with committees
- Begin to identify Plan stakeholders
- Safety/Crash statistics
- Existing Commodity Flows from FAF4

Study Area Boundary



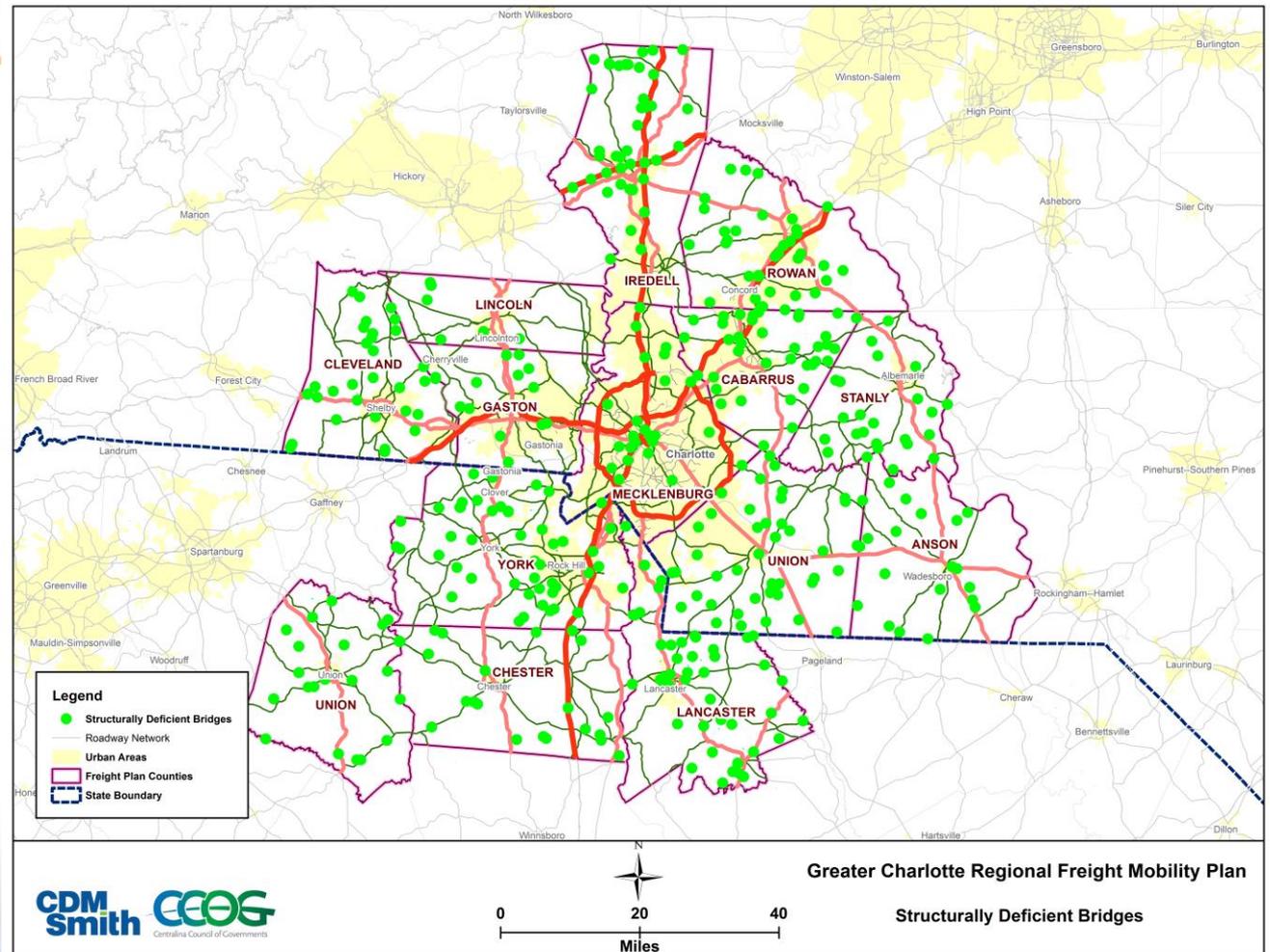
Truck Roadway Network Inventory

Roadway Type	Miles
Interstate	556.86
US Highway	920.06
State	1,846.41
Local	12,051.34



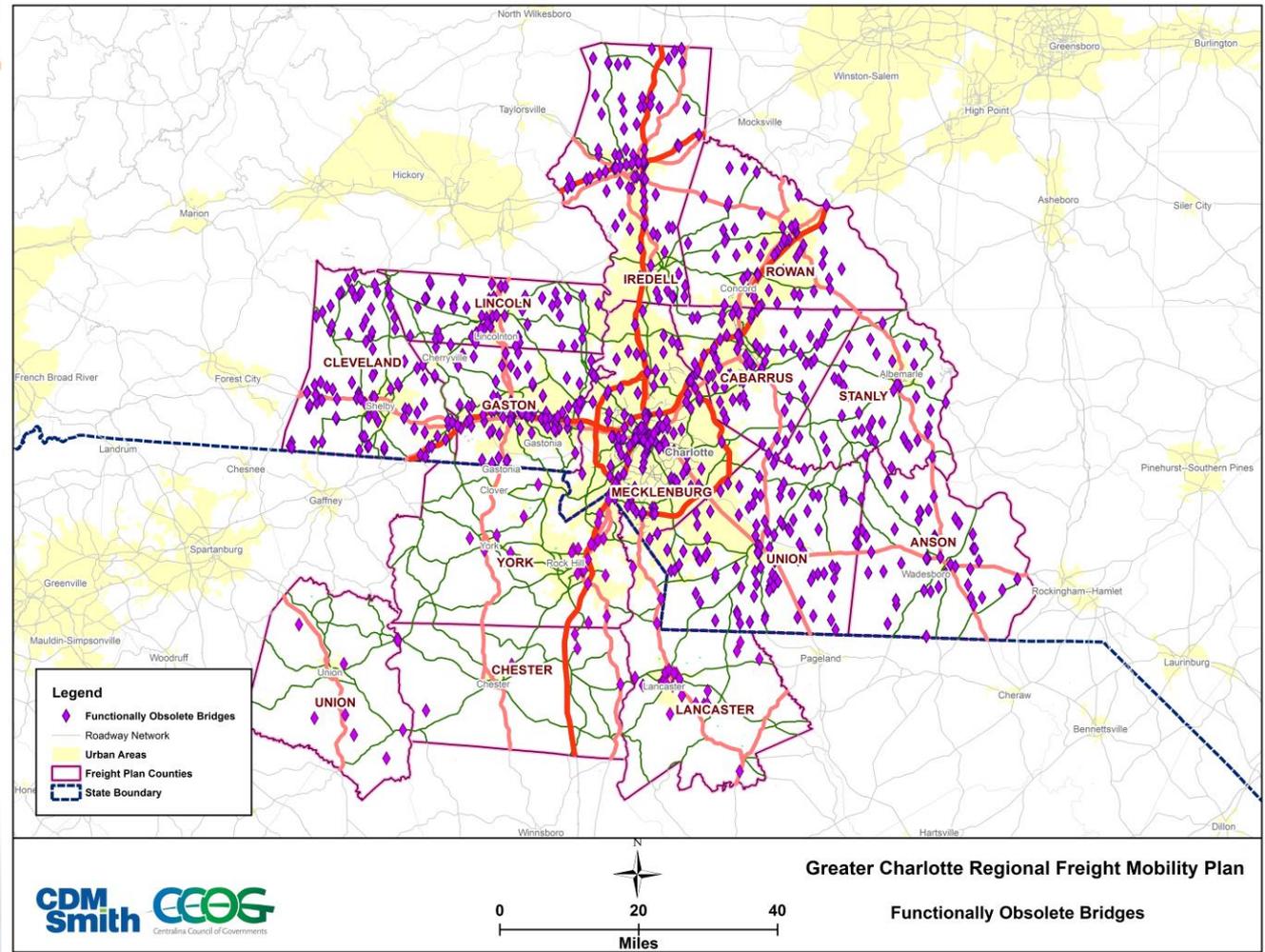
Bridges—Structurally Deficient

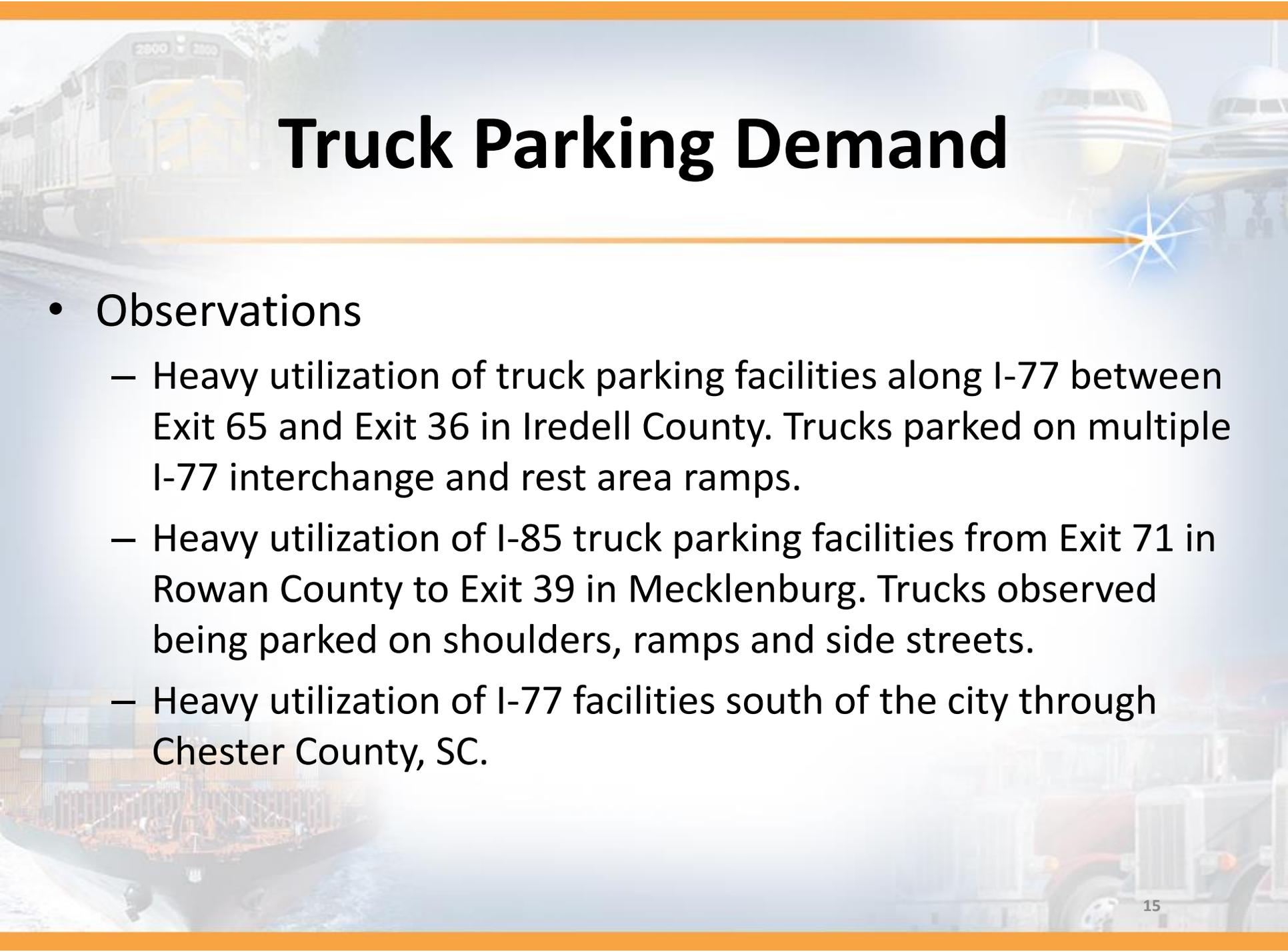
- North Carolina: 282 Bridges
- South Carolina: 139



Bridges—Functionally Obsolete

- North Carolina: 831 bridges
- South Carolina: 67





Truck Parking Demand

- Observations
 - Heavy utilization of truck parking facilities along I-77 between Exit 65 and Exit 36 in Iredell County. Trucks parked on multiple I-77 interchange and rest area ramps.
 - Heavy utilization of I-85 truck parking facilities from Exit 71 in Rowan County to Exit 39 in Mecklenburg. Trucks observed being parked on shoulders, ramps and side streets.
 - Heavy utilization of I-77 facilities south of the city through Chester County, SC.

Truck Parking Inventory

Truck Parking Facilities:

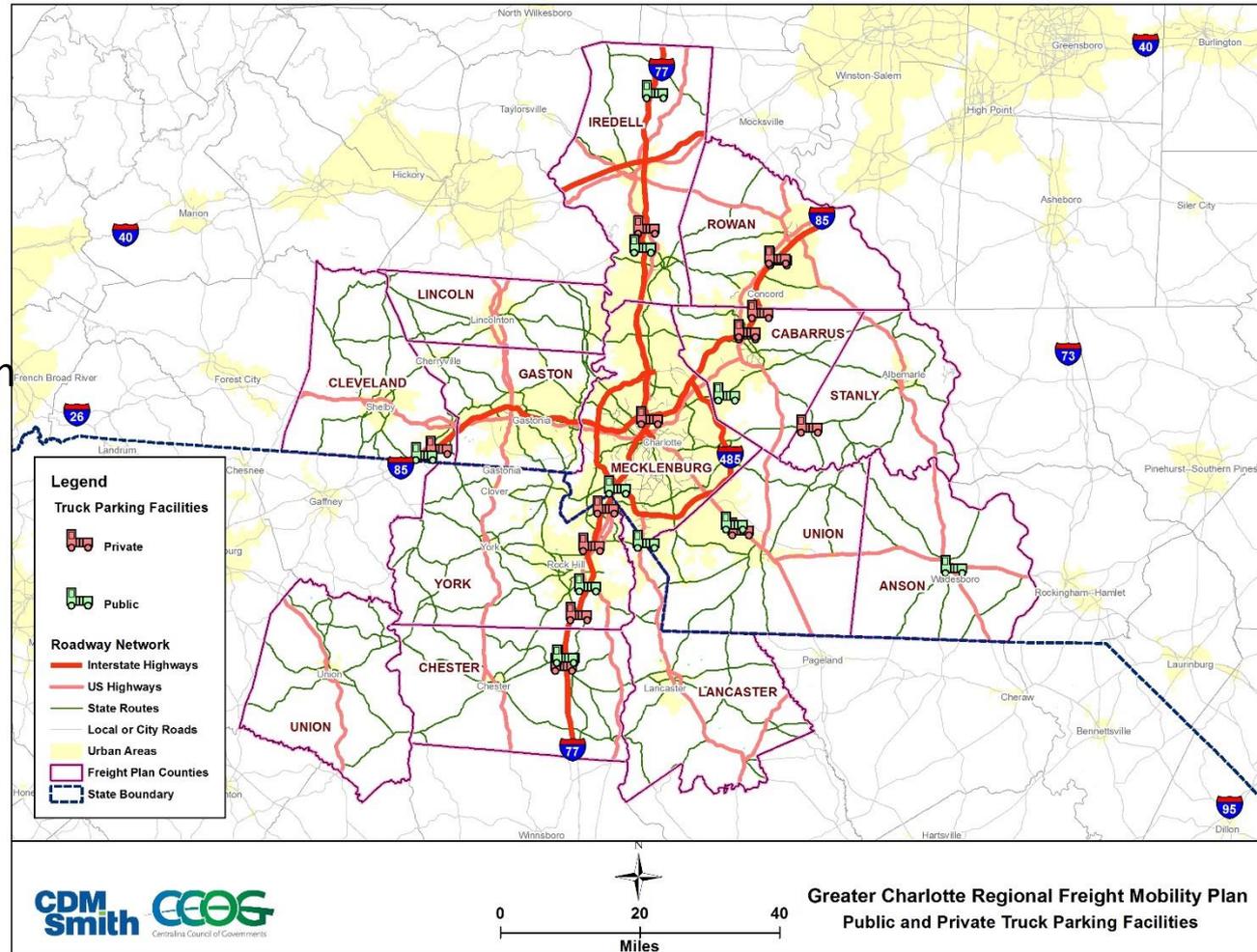
- 10 Public
- 16 Private

Private truck stops:

- <http://www.truckstops.com>
- 2015 National Truck Stop Directory.

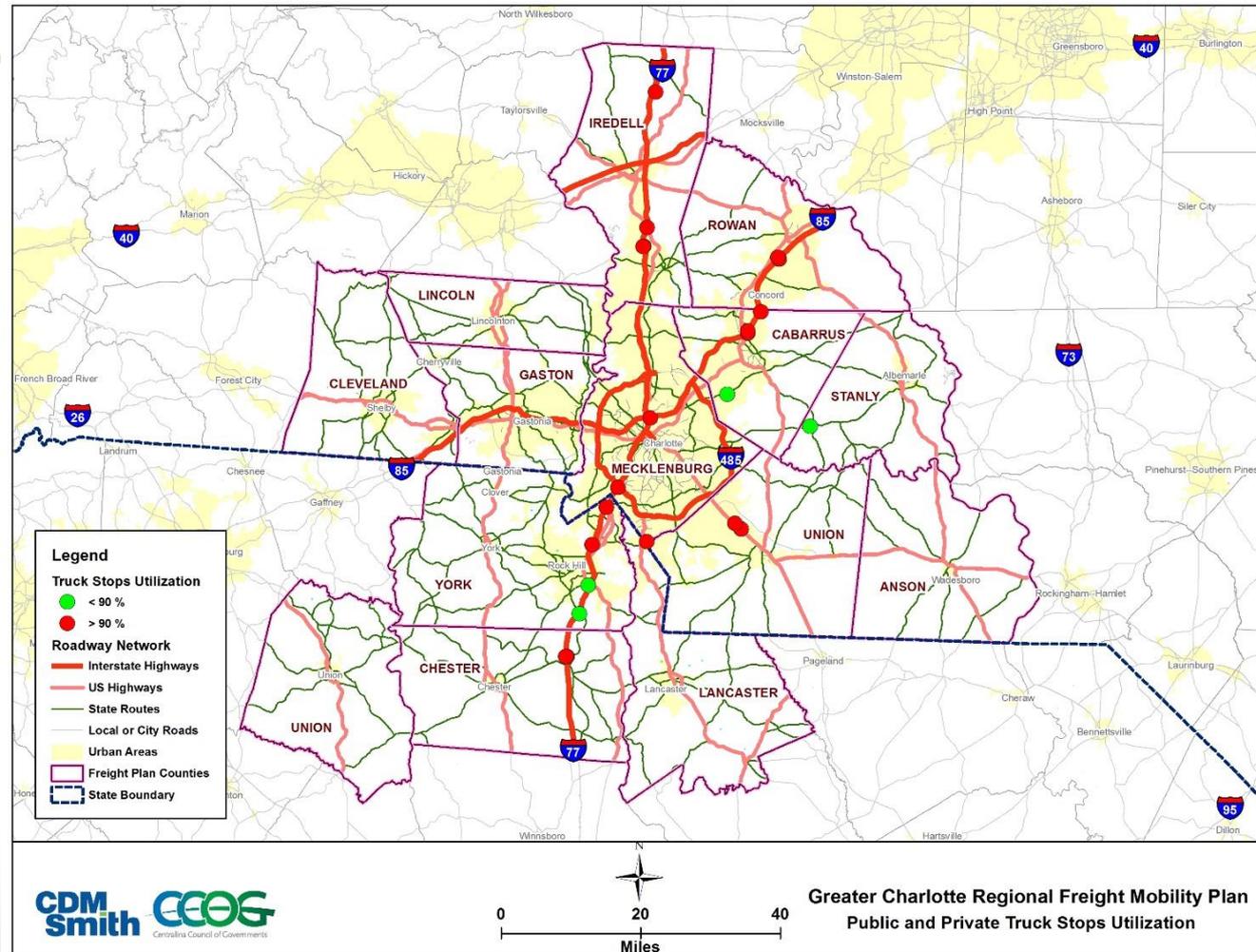
Public rest areas, welcome centers and visitor centers:

- NCDOT
- SCDOT
- Field Visits



Truck Parking Utilization

Of the 26 truck parking locations where data was collected, only 5 are less than 90% utilized



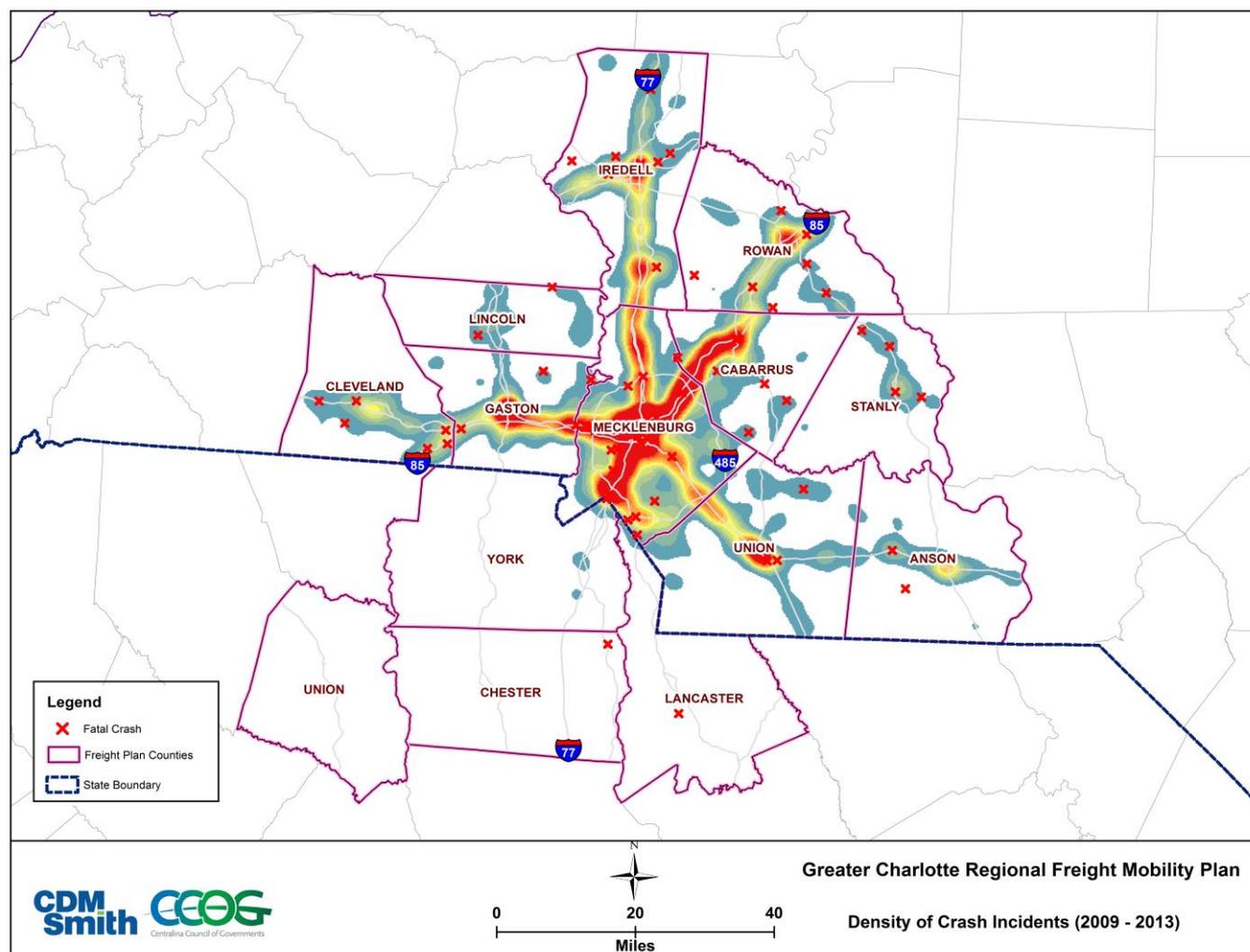
Truck Crash Statistics

Commercial Vehicle and All Motor Vehicle Crashes (2009 -2013)			
Year	Commercial Vehicle Crashes	All Motor Vehicle Crashes	CMV/All Vehicle Crashes
2009	1,172	51,411	2.3%
2010	1,298	52,145	2.5%
2011	1,321	52,172	2.5%
2012	1,437	56,270	2.6%
2013	1,398	59,593	2.3%
Total	6,626	271,591	2.4%

Truck Crash Statistics

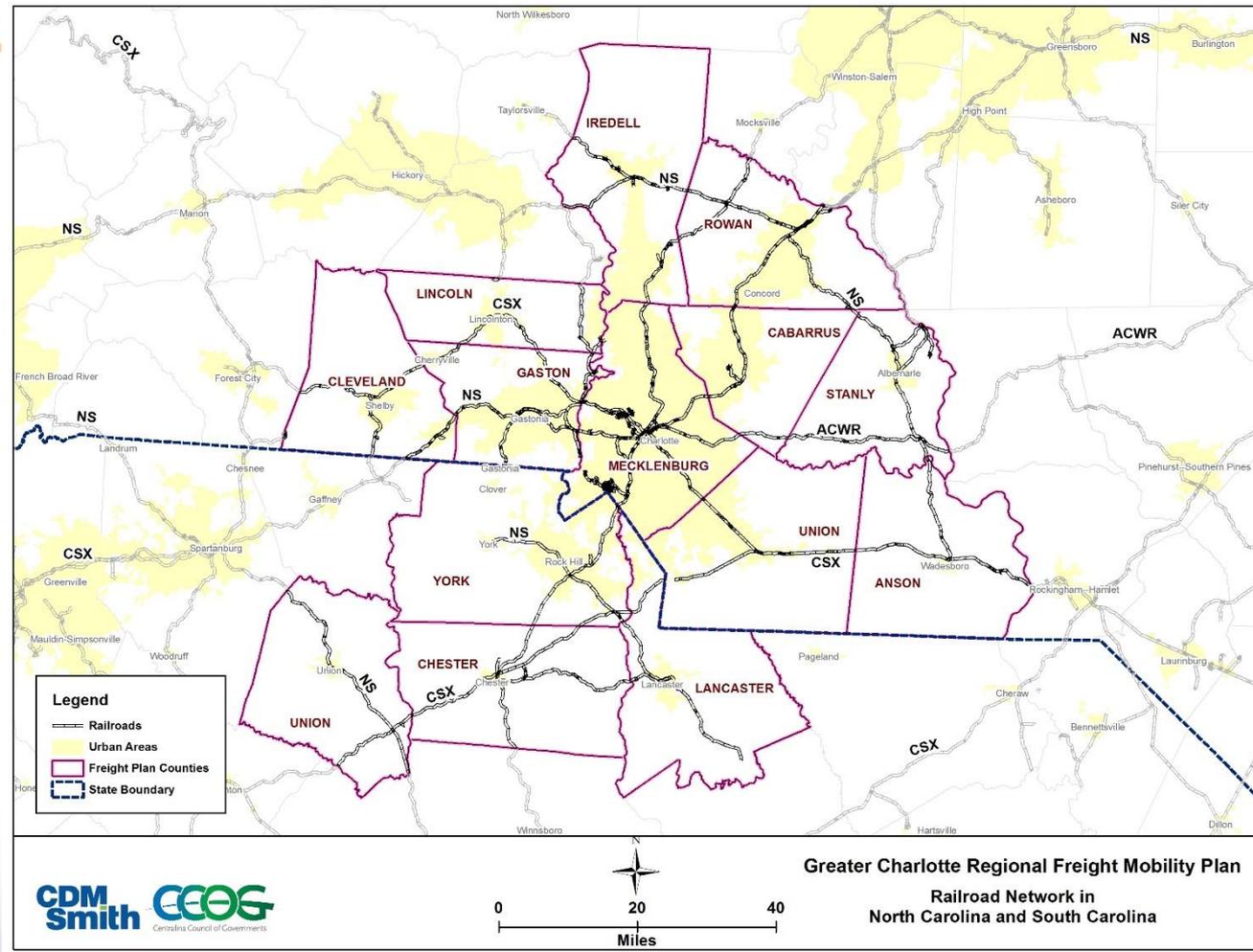
Commercial Vehicle Crashes by Roadway Type and Severity (2009 – 2013)					
Roadway Type	Fatal	Injury	PDO	Unknown	Total
Interstate	30	819	1,808	6	2,663
US Highway	11	240	476	2	729
State Primary	15	178	311	3	507
State Secondary	8	139	243	6	396
County/ Local	12	581	1,702	36	2,331
Total	76	1,957	4,540	53	6,626

Truck Crash Densities



Region's Railroads

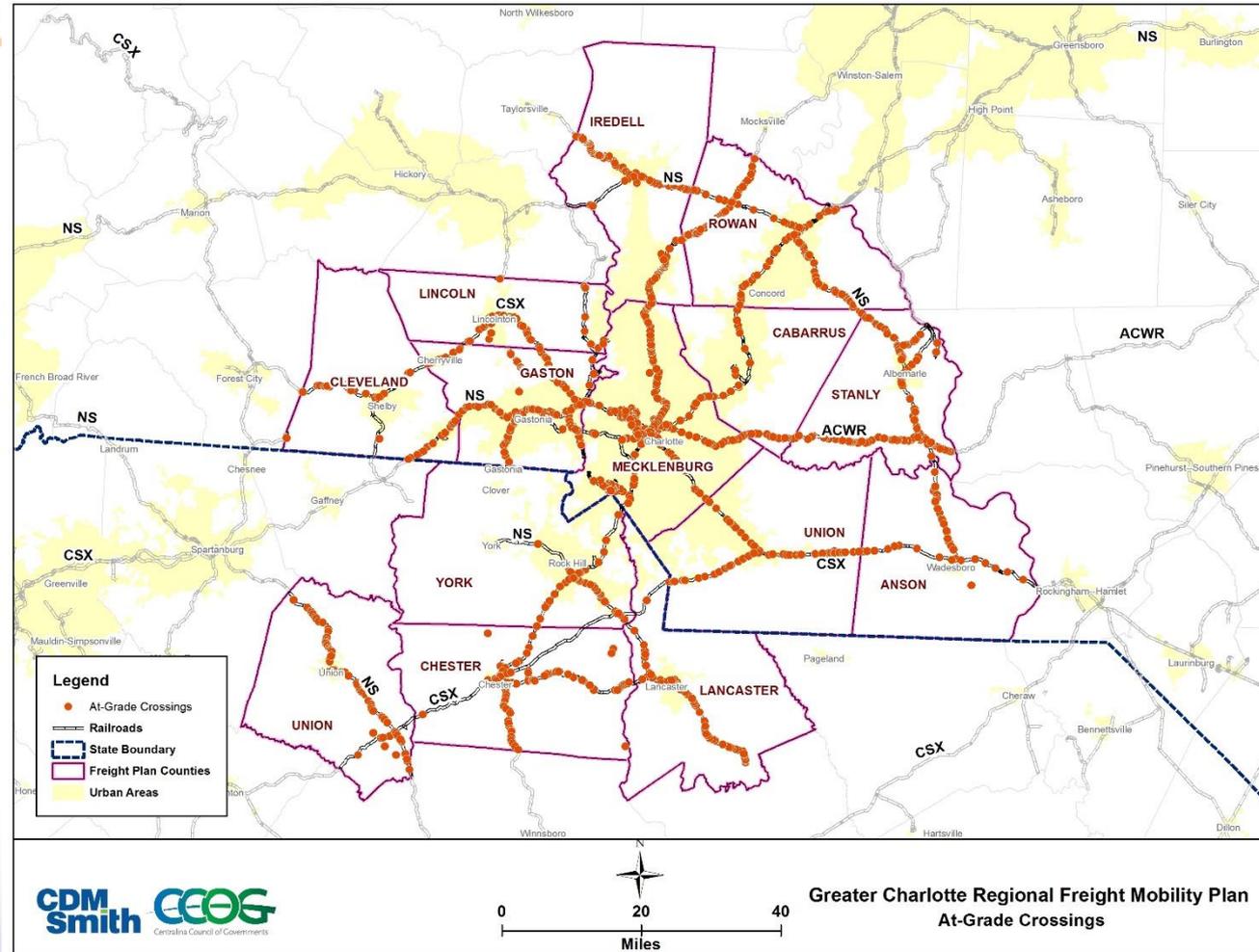
Railroad Owner	Miles
Aberdeen Carolina & Western Railway	50.8
Alexander Railroad Company	13.6
Carolina Coastal Railway	13.5
CSX	335.0
NCDOT	1.0
Norfolk Southern	593.7
Piedmont & Northern Railway	15.5
Winston-Salem Southbound Railway	42.10
Lancaster & Chester	66.8
Others/Unknown	10.0



Rail/Highway at-Grade Crossings

North Carolina -
1,158 crossings

South Carolina -
343 crossings



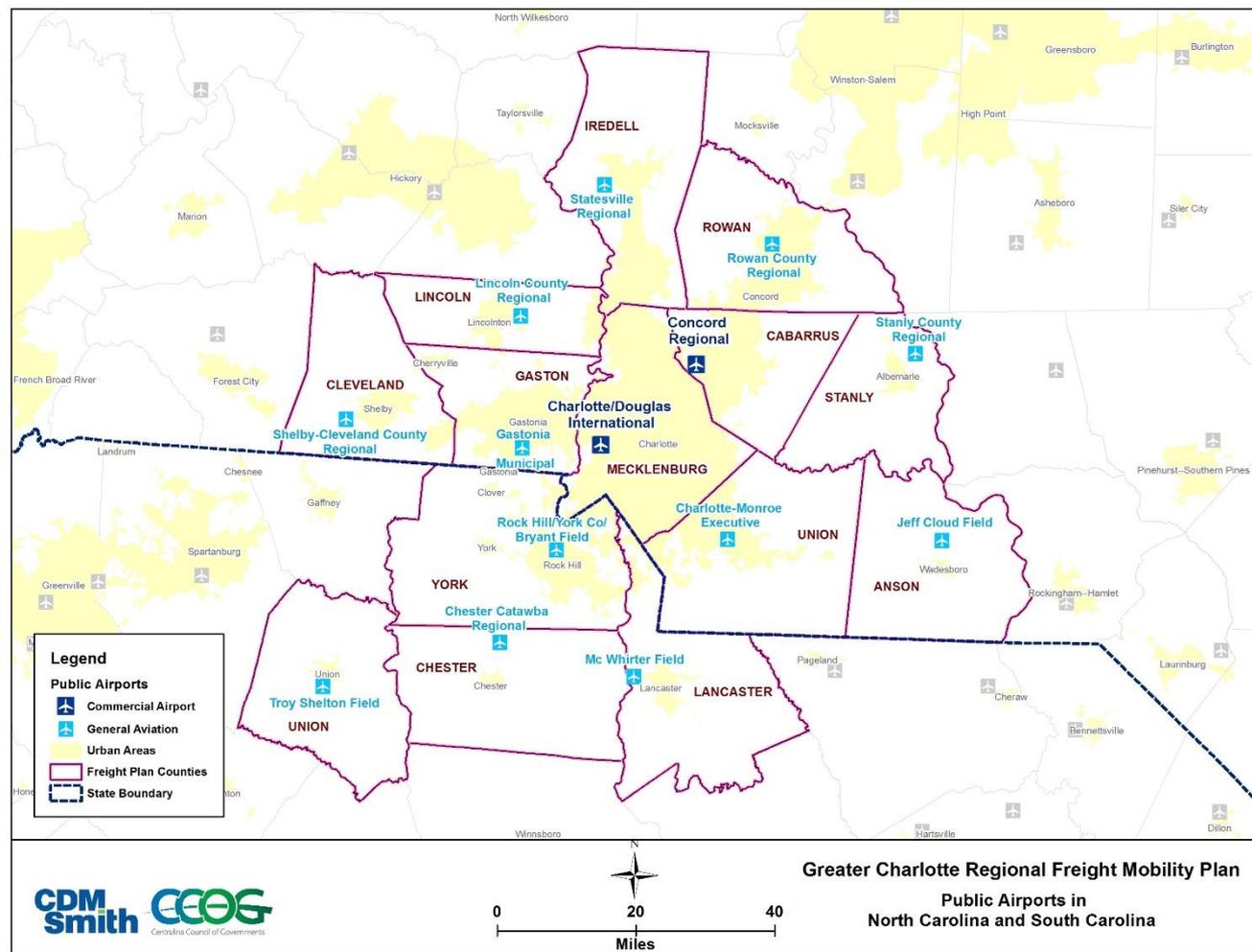
Rail Bottlenecks and Constraints

- Along both the NS Main line and the CSX SF line at the ADM Mill in downtown Charlotte.
- The Charlotte Junction Wye, located west of downtown Charlotte, connecting the NS Main line and the R line.
- Aberdeen Carolina & Western Railway (ACW) corridor creating bottlenecks in CSX's North Davidson yard.
- Extensive CSX northwest yard terminal operation impacting local roadway networks.

Region's Airports

Commercial Service
Airports - 2

General Aviation
Airports - 12

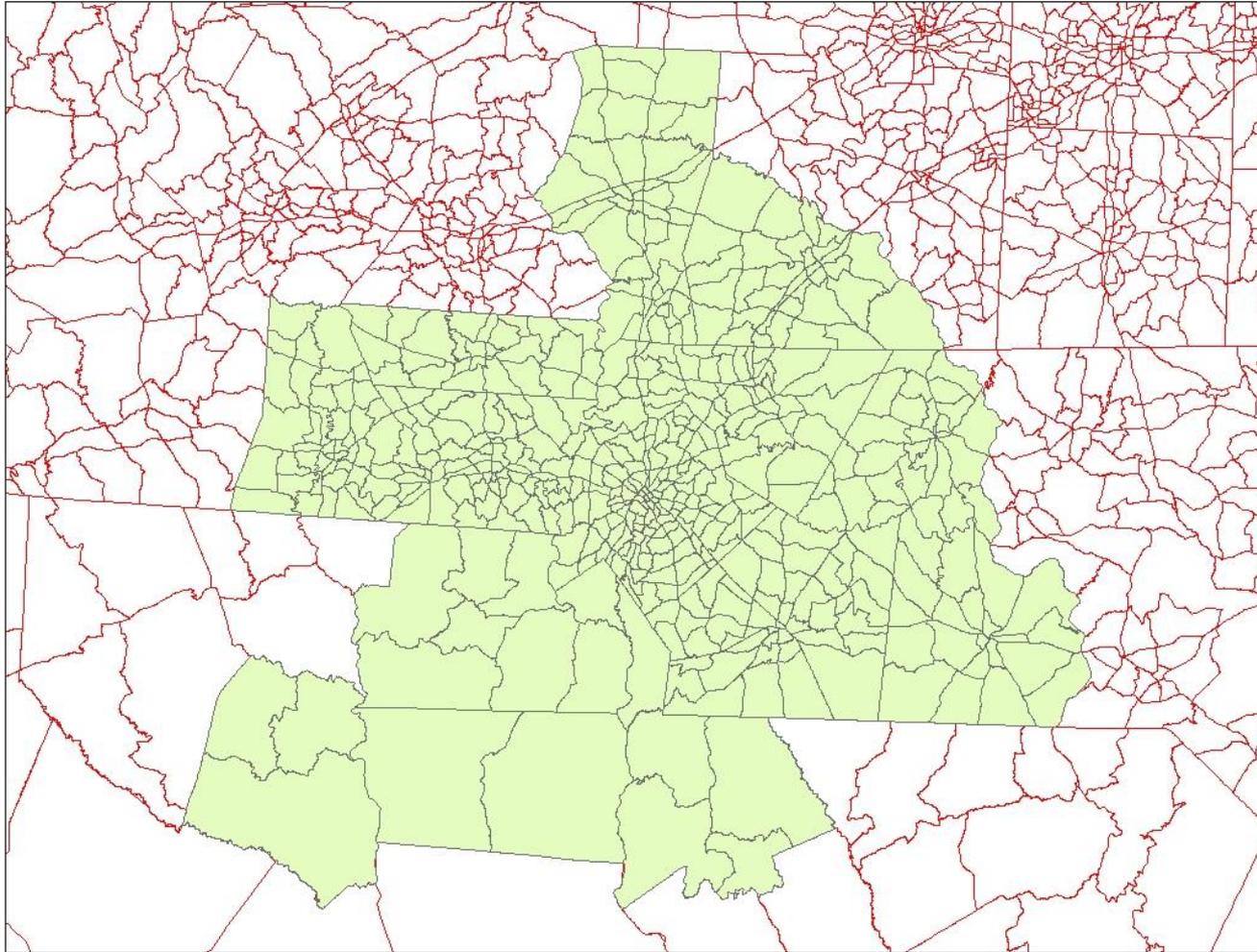


Current Relevant Freight Planning

- Cabarrus-Rowan Metropolitan Planning Organization (CRMPO) Draft 2040 Metropolitan Transportation Plan (MTP) (March 2014)
- Charlotte Region Transportation Planning Organization (CRTPO) MTP (April 2014)
- Gaston-Cleveland-Lincoln Metropolitan Planning Organization (GCLMPO) MTP
- Stanly County Comprehensive Transportation Plan (CTP) (2012)
- Anson County Comprehensive Transportation Plan (CTP) (2012)
- Rock Hill-Fort Mill Area Transportation Study (RFATS) 2035 Long Range Transportation Plan (LRTP)
- Catawba Regional Council of Governments LRTP
- NCDOT Seven Portals Study (2011)
- Piedmont Improvement Program
- Charlotte Railroad Improvement and Safety Program (CRISP)
- NCDOT Statewide Logistics Plan (2008)
- South Carolina Statewide Freight Plan (2014)

Commodity Flows

FAF Boundaries within the NCDOT Statewide Model

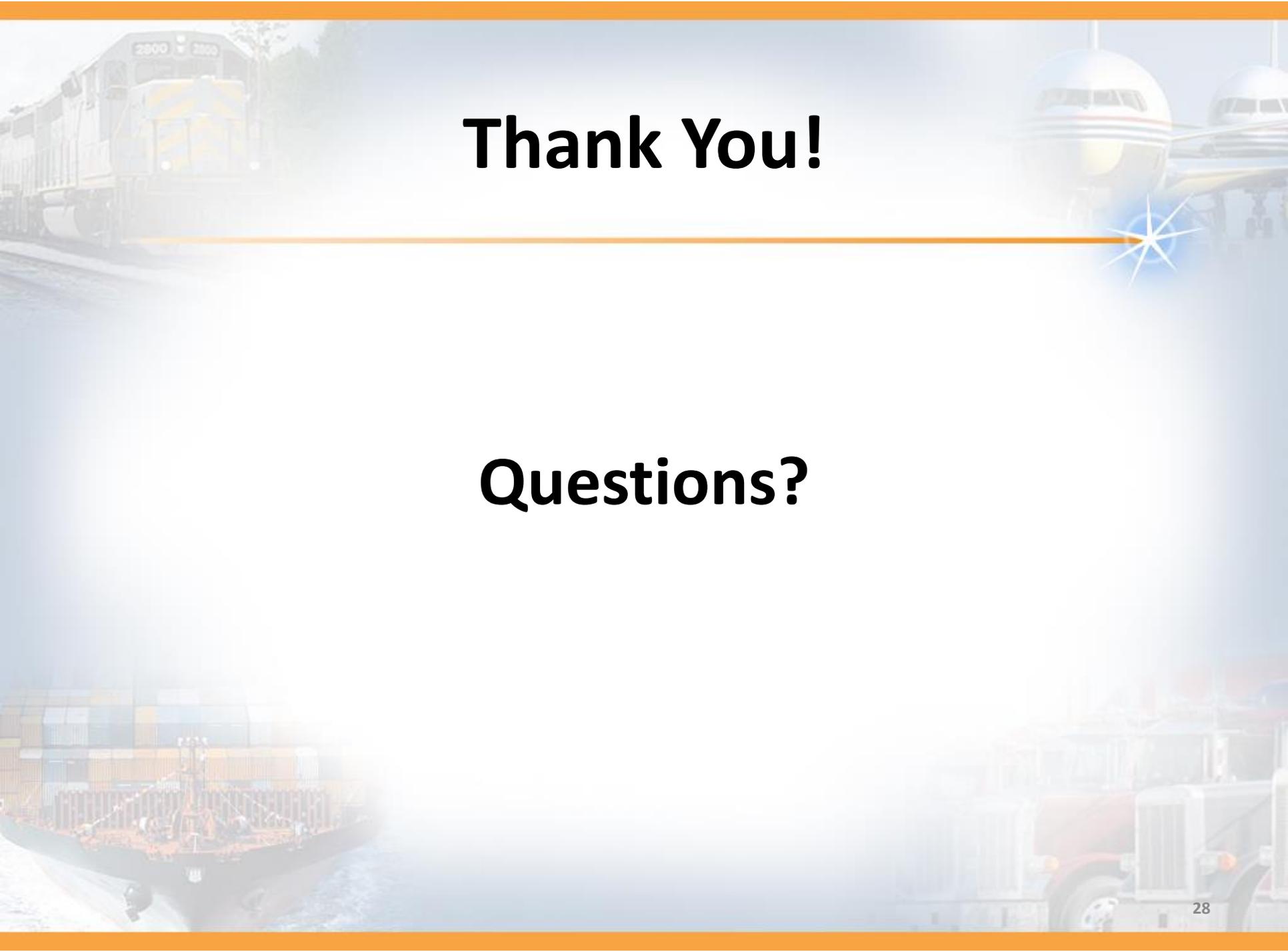


Schedule

Task	2015							2016												2017	
	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Task 0: Project Management and Stakeholder Involvement	[Gantt bar spanning from July 2015 to February 2017]																				
Task 0.1: Develop a Project Management Plan and Stakeholder Involvement Plan	[Gantt bar spanning from August 2015 to December 2015]																				

ID	Task Name	Q3 15			Q4 15			Q1 16			Q2 16			Q3 16			Q4 16					
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan		
1	Task 0: Project Management and Stakeholder Involvement	[Gantt bar spanning from July 2015 to February 2017]																				
2	Task 1: Analysis of Existing Conditions for Truck and Rail Freight Mobility in the Region	[Gantt bar: Jul-Aug]			[Gantt bar: Sep-Oct]			[Gantt bar: Nov-Dec]			[Gantt bar: Jan-Feb]			[Gantt bar: Mar-Apr]			[Gantt bar: May-Jun]		[Gantt bar: Jul-Aug]		[Gantt bar: Sep-Oct]	
3	Task 2: Land Use, Facility, Infrastructure and Regulatory Gap/Future Demand Analysis	[Gantt bar: Jul-Aug]			[Gantt bar: Sep-Oct]			[Gantt bar: Nov-Dec]			[Gantt bar: Jan-Feb]			[Gantt bar: Mar-Apr]			[Gantt bar: May-Jun]		[Gantt bar: Jul-Aug]		[Gantt bar: Sep-Oct]	
4	Task 3: Best Practices in Freight Mobility Efficiency, Safety and Technology (ITS)	[Gantt bar: Jul-Aug]			[Gantt bar: Sep-Oct]			[Gantt bar: Nov-Dec]			[Gantt bar: Jan-Feb]			[Gantt bar: Mar-Apr]			[Gantt bar: May-Jun]		[Gantt bar: Jul-Aug]		[Gantt bar: Sep-Oct]	
5	Task 4: Prioritize List of Regional Needs	[Gantt bar: Jul-Aug]			[Gantt bar: Sep-Oct]			[Gantt bar: Nov-Dec]			[Gantt bar: Jan-Feb]			[Gantt bar: Mar-Apr]			[Gantt bar: May-Jun]		[Gantt bar: Jul-Aug]		[Gantt bar: Sep-Oct]	
6	Task 5: Develop Regional Freight Performance Measures in Accordance with USDOT/MAP-21 Recommendations and State Strategic Freight Plan Requirements	[Gantt bar: Jul-Aug]			[Gantt bar: Sep-Oct]			[Gantt bar: Nov-Dec]			[Gantt bar: Jan-Feb]			[Gantt bar: Mar-Apr]			[Gantt bar: May-Jun]		[Gantt bar: Jul-Aug]		[Gantt bar: Sep-Oct]	
7	Task 6: Develop Draft and Final Greater Charlotte Freight Mobility Plan Report	[Gantt bar: Jul-Aug]			[Gantt bar: Sep-Oct]			[Gantt bar: Nov-Dec]			[Gantt bar: Jan-Feb]			[Gantt bar: Mar-Apr]			[Gantt bar: May-Jun]		[Gantt bar: Jul-Aug]		[Gantt bar: Sep-Oct]	

Task 6: Develop Draft and Final Greater Charlotte Freight Mobility Plan Report	[Gantt bar spanning from July 2015 to February 2017]																				
Task 6.1: Develop Draft Plan/Report with Findings and Recommendations	[Gantt bar spanning from July 2015 to February 2017]																				
Task 6.2: Present Draft to Project Steering Committee for Review/Comment	[Gantt bar spanning from August 2015 to December 2015]																				
Task 6.3: Present Draft at Public Meetings for Review/Comment	[Gantt bar spanning from September 2015 to December 2015]																				
Task 6.4: Submit Final Report Incorporating Comments to CCOG	[Gantt bar spanning from October 2015 to December 2015]																				



Thank You!

Questions?